

**Table 4-4**  
**FS-1 Groundwater Ethylene Dibromide Concentrations and Water Quality Parameters**  
**May 2001 - April 2002**

Location	Date Sampled	Well Depth Class	EDB Concentration (µg/L) (MMCL = 0.02 µg/L)	Qualifier	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (std)	Specific Conductance (µS/cm)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)
<b>Shallow Extraction Wellpoints</b>										
36EW4001	10/16/01	A	0.035		12.79	10.07	6.96	105	330	3.1
	03/21/02		0.012		9.18	14.21	7.24	70	384	0.7
36EW4005	10/16/01	A	0.018		12.70	8.90	6.01	88	341	2.1
	03/21/02		0.008	J	9.15	10.26	6.27	89	452	1.1
36EW4010	10/16/01	A	0.032		11.64	9.82	6.14	94	369	2.0
	03/21/02		0.011		9.78	11.34	6.07	50	449	0.2
36EW4015	10/16/01	A	0.023		12.62	10.51	6.22	69	353	1.1
	03/21/02		0.01		9.54	13.48	6.07	80	445	0.1
36EW4020	10/16/01	A	0.023		11.40	10.88	6.15	77	354	1.1
	03/21/02		0.02		10.06	11.49	6.19	48	447	0.7
36EW4025	10/16/01	A	0.007	J	13.71	10.12	6.39	68	339	0.8
	03/21/02		0.005	J	10.15	11.91	6.11	40	445	2.6
36EW4030	10/17/01	A	0.048		11.80	10.87	7.05	70	169	13
	03/21/02		0.031		9.80	12.85	6.09	47	434	24
36EW4035	10/17/01	A	0.150		11.27	10.60	6.96	61	203	0.5
	03/21/02		0.100		9.68	12.35	6.33	64	431	0.7
36EW4040	10/17/01	A	0.096		10.65	11.21	6.85	63	214	1.4
	03/21/02		0.058		9.84	11.70	5.93	38	447	0.4
36EW4044	10/17/01	A	0.279		10.74	10.69	6.82	70	219	0.4
	03/21/02		0.458		10.13	10.51	6.08	42	439	0.9
36EW4050	10/17/01	A	0.094		11.61	10.74	6.78	69	216	1.6
	03/22/02		0.019		8.57	10.72	7.51	40	348	8.0
36EW4054	10/17/01	A	0.072		11.99	9.10	6.90	92	207	1.4
	03/29/02		ND		9.49	7.83	6.32	83	457	0.2
36EW4060	10/17/01	A	0.11		12.37	8.04	6.39	85	222	1.4
	03/22/02		0.077		8.13	9.86	7.45	68	386	8.2
36EW4065	03/22/02	A	0.141		8.58	9.49	7.41	42	385	5.0
36EW4069	10/17/01	A	0.302		12.09	8.96	6.26	80	231	2.3
	03/22/02		0.139		8.72	9.63	7.31	44	415.8	1.6
36EW4074	01/23/02	A	0.084		9.22	8.71	6.56	85	219	7.4
36EW4080	10/17/01	A	0.007	J	12.85	7.60	6.28	76	234	5.4
	03/22/02		0.009	J	7.49	8.51	7.32	78	414	1.6
36EW4085	01/23/02	A	0.479		8.16	7.67	6.48	88	218	0.4
	03/22/02		0.067		7.89	9.68	7.37	82	403	1.3
36EW4090	07/19/01	A	0.364		11.68	2.19	6.47	90	302	0.1
	10/17/01		0.764		10.77	3.81	6.48	97	229	2.1
	01/23/02		0.124		9.29	5.25	6.41	76	211	2.1
	03/26/02		0.551		8.03	7.63	7.36	99	407	1.0
36EW4095	01/22/02	A	0.02		9.83	5.41	6.20	70	182	1.8
36EW4100	07/19/01	A	0.031		11.96	7.40	6.29	70	323	1.4
	10/18/01		0.086		12.14	5.75	6.44	71	202	1.6
	01/22/02		0.028		9.83	5.55	6.25	69	164	1.4
	03/26/02		ND		7.39	8.53	7.38	79	415	0.8
36EW4109**	07/25/01	A	ND		13.06	6.60	6.28	75	342	3.9
36EW4110	10/18/01	A	ND		13.50	5.59	6.68	78	212	5.5
36EW4122	07/20/01	A	ND		11.99	10.27	5.78	55	241	0.5
	10/18/01		ND		11.14	7.73	6.79	63	235	1.5
36EW4132	07/20/01	A	ND		16.07	10.83	7.42	75	165	3.2
	10/18/01		ND		11.89	8.31	6.40	60	229	2.2
	01/22/02		ND		9.25	9.13	6.10	61	217	26
36EW4140	07/20/01	A	0.173		13.90	4.60	6.69	78	211	4.4
	10/18/01		0.050		14.40	5.25	6.50	72	206	3.6
	01/24/02		0.018		7.86	2.19	6.25	89	353	9.8
	03/26/02		1.09		8.19	7.83	7.38	94	412	40
36EW4145	03/26/02	A	0.290		7.80	5.66	7.35	79	403	19
36EW4149	01/28/02	A	0.016		10.08	5.58	6.32	72	439	87
	03/26/02		0.013		7.40	6.39	7.30	81	410	17
36EW4150	07/20/01	A	0.012		12.35	1.91	6.35	69	220	0.8
	10/18/01		0.038		12.61	5.41	6.43	71	235	2.8
36EW4158	07/20/01	A	ND		12.58	6.49	6.40	74	218	0.5
	10/17/01		ND		12.10	7.12	6.21	74	217	0.8
<b>Monitoring Wells</b>										
00MW0552A	01/16/02	C	ND		11.25	1.49	6.63	164	79.0	0.6
	03/20/02		ND		10.73	1.23	6.71	196	76.0	0.6
00MW0552B	01/16/02	B	ND		11.04	0.35	6.53	163	72.0	2.2
	03/20/02		ND		10.77	0.41	6.61	182	71.0	2.3
36MW0002	01/24/02	A			14.01	0.54	6.02	96	-65.0	1.1
	03/22/02		ND		13.03	0.96	5.84	96	134	0.9

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**May 2001 - April 2002**

Location	Date Sampled	Well Depth Class	EDB Concentration (µg/L) (MMCL = 0.02 µg/L)	Qualifier	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (std)	Specific Conductance (µS/cm)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)
36MW0007	01/24/02	A			14.08	0.89	5.81	76	-53.8	0.6
	03/22/02		ND		12.75	1.40	5.66	84	150	1.1
36MW0010A	01/24/02	A			13.02	8.94	5.13	62	302	0.5
	03/22/02		ND		12.01	10.21	5.02	61	483	0.9
36MW0015	01/24/02	B			12.34	10.12	6.04	69	153	9.7
	01/28/02				12.45	11.26	5.99	70	441	20
	03/22/02		ND		11.28	10.31	5.92	72	402	4.9
36MW0131A	01/16/02	D	2.11		10.38	1.33	6.30	109	379	2.8
	03/20/02		3.66		10.27	1.26	6.02	112	172	2.0
36MW0131B	01/16/02	C	0.274		9.94	0.73	6.36	103	400	1.5
	03/20/02		0.110		10.01	0.61	6.11	96	161	0.2
36MW0131C	01/16/02	B	ND		10.74	10.89	6.08	64	422	0.4
	03/20/02		0.111		10.04	11.07	5.81	65	198	1.9
36MW0132A	10/12/01	D	1.46		12.96	1.81	6.23	85	319	2.9
	01/16/02		1.94		11.01	1.45	6.46	82	182	3.3
	03/20/02		0.839		10.57	1.09	6.16	74	149	2.4
36MW0132B	10/12/01	C	3.47		13.30	4.63	6.02	85	344	0.7
	01/16/02		5.42		10.90	4.70	6.19	81	209	3.8
	03/20/02		4.20		10.54	4.42	5.94	81	177	1.5
36MW0132C	10/12/01	B	0.455		14.34	0.44	6.02	101	334	0.6
	01/16/02		0.665		11.17	0.76	6.27	98	204	0.5
	03/20/02		2.23		10.44	2.01	6.04	98	168	1.1
36MW0133	10/15/01	B	ND		13.15	0.22	6.53	98	10.2	4.0
	01/18/02		ND		9.92	0.15	6.45	97	-7.5	4.1
	03/21/02		ND		11.85	0.70	6.35	98	13.6	5.6
36MW0135	10/15/01	D	ND		13.49	0.24	7.03	89	22.8	13
	01/22/02		ND		10.92	0.22	6.82	89	-50.6	3.8
	03/21/02		ND		11.42	0.27	6.60	90	5.2	7.9
36MW0136	10/15/01	C	0.005	J	12.75	0.28	6.68	114	73.2	3.7
	01/22/02		0.01		10.62	0.24	6.43	113	1.8	3.8
	03/21/02		0.033		11.48	0.31	6.28	114	42.5	13
36MW0137	10/15/01	C	0.166		12.42	7.71	5.86	79	272	1.2
	01/17/02		0.119		10.58	8.52	5.75	77	246	0.2
	03/20/02		0.074		10.82	8.73	5.66	80	472	2.3
36MW0138	10/19/01	C	ND		11.54	0.48	6.63	103	118	2.4
36MW0139	10/15/01	C	ND		13.01	9.08	5.80	72	256	1.3
	01/28/02		ND		11.73	8.86	5.61	72	248	0.9
	03/20/02		ND		10.99	8.89	5.73	74	469	7.9
36MW0140	10/19/01	C	ND		11.18	0.50	6.54	118	12.9	11
	01/28/02		ND		10.78	0.25	6.38	115	-3.6	3.3
	03/21/02		ND		10.89	0.30	6.30	115	1.5	8
36MW0141	01/16/02	D	ND		10.75	0.34	6.99	94	-67.9	5.3
	03/25/02		ND		10.56	0.22	6.68	95	-62.9	6.9
36MW0143	10/16/01	D	ND		12.37	0.34	7.32	123	-97.7	4.3
	01/16/02		ND		10.88	0.32	7.27	131	-111	5.8
	03/21/02		ND		11.57	0.42	6.86	129	-101	6.8
36MW0501	01/18/02	B	ND		10.42	8.99	6.17	68	238	0.3
	03/27/02		ND		11.02	9.80	6.26	69	164	1.0
36MW0503A*	08/01/01	C	1.14		13.99	1.69	5.80	81	145	2.2
	01/23/02		0.775		11.29	1.79	5.83	80	194	1.5
	03/27/02		0.866		11.72	1.87	5.84	80	174	0.6
36MW0503B*	08/01/01	B	0.101		13.96	1.95	5.73	75	185	1.0
	01/23/02		0.069		11.94	1.46	5.74	76	236	0.6
	03/27/02		0.072		11.94	1.67	5.73	76	214	0.0
36MW0503C	01/23/02	B	0.021		12.22	8.71	5.81	70	199	2.4
	03/27/02		0.023		12.30	9.68	5.81	71	186	0.8
36MW0504	01/18/02	D	ND		10.71	9.52	6.03	76	250	0.5
	03/27/02		ND		10.96	10.35	5.97	78	206	1.4
36MW0603A*	08/08/01	C	0.765		14.63	4.56	5.81	81	173	2.3
	01/25/02		0.343		11.94	4.85	5.82	77	173	6.7
	03/26/02		0.255		11.67	5.72	5.67	77	178	2.5
36MW0603B	01/25/02	B	ND		12.39	0.88	5.77	55	189	2.8
	03/26/02		ND		12.16	1.17	5.62	51	167	2.0
36MW0604	01/25/02	C	ND		11.52	9.52	5.70	71	450	0.7
	03/26/02		ND		11.64	9.69	5.54	68	193	0.7
36MW1001A	10/16/01	D	ND		12.61	0.98	6.49	67	216	3.9
	01/23/02		ND		10.74	0.66	6.28	67	126	3.0
	03/21/02		ND		10.97	0.92	6.47	67	142	3.0

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**May 2001 - April 2002**

Location	Date Sampled	Well Depth Class	EDB Concentration (µg/L) (MMCL = 0.02 µg/L)	Qualifier	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (std)	Specific Conductance (µS/cm)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)
36MW1001B	10/16/01	C	0.357		11.84	3.84	6.44	74	262	2.3
	01/23/02		0.05		11.09	5.34	6.35	74	143	2.6
	03/21/02		0.051		11.52	5.07	6.47	71	166	4.0
36MW1010A	10/16/01	E	0.037		11.91	5.31	5.74	90	206	25
	01/18/02		0.043		10.47	5.16	5.96	98	85	24
	03/25/02		0.046		10.75	3.78	7.27	86	385	17
36MW1010B	10/16/01	D	0.503		11.97	4.80	5.54	88	318	1.1
	01/18/02		0.572		10.22	5.08	5.72	90	215	2.1
	03/25/02		0.717		10.31	4.73	7.16	90	450	0.7
36MW1010C	10/16/01	B	ND		12.13	11.57	5.33	56	315	0.6
	01/18/02		ND		10.54	11.45	7.66	59	391	1.8
	03/25/02		ND		10.78	11.14	7.14	59	466	1.1
36MW1011A	10/15/01	C	ND		12.68	0.25	6.65	88	214	9.3
	01/18/02		ND		11.26	0.21	6.92	86	26	4.2
	03/21/02		ND		11.54	0.31	6.81	88	31	6.2
36MW1011B	01/18/02	A	ND		11.02	4.68	5.17	60	318	0.8
	03/21/02		ND		9.92	2.80	5.19	66	258	1.4
36MW1012A	10/16/01	D	ND		12.18	3.51	6.19	70	161	11.5
	01/17/02		ND		10.43	3.65	6.47	70	131	19
	03/25/02		ND		10.59	2.86	7.28	71	375	7.8
36MW1012B	10/16/01	B	0.058		12.65	11.33	5.80	65	221	2.1
	01/17/02		0.059		10.49	10.68	6.09	67	211	3.0
	03/25/02		0.059		10.07	10.16	7.19	76	426	1.6
36MW1012C	10/16/01	A	ND		14.29	9.58	5.74	56	230	0.6
	01/17/02		ND		11.25	9.40	6.04	56	225	0.7
	03/25/02		ND		11.15	9.65	7.15	58	429	0.9
36MW1013A	01/18/02	D	ND		10.37	8.96	6.49	71	403	2.0
	03/25/02		ND		10.47	8.87	7.00	73	88	3.4
36MW1013B	01/18/02	C	ND		10.06	7.49	6.38	73	387	3.4
	03/25/02		ND		10.61	6.15	6.47	70	120	4.5
36MW1013C	01/18/02	A	ND		11.53	6.82	5.78	74	348	1.2
	03/25/02		ND		10.84	7.07	5.91	75	86.4	0.5
36MW1013D	05/10/01	E	ND		12.91	0.39	8.82	279	-307	37
	01/23/02		ND		10.65	0.36	8.99	253	-202	23
	03/25/02		ND		10.73	0.18	8.99	257	-260	10
36MW1013E	05/10/01	D	ND		11.78	0.51	7.12	89	-308	112
	01/23/02		ND		10.47	0.36	7.01	95	-48.8	181
	03/25/02		ND		10.44	0.28	7.10	99	-82.9	55
36MW1014A	01/24/02	C	ND		10.61	8.65	5.56	113	262	11
	03/22/02		ND		10.05	8.80	5.43	89	235	8.3
36MW1014B	01/24/02	A	0.022		10.92	8.75	5.68	104	258	0.0
	03/22/02		0.007	J	10.25	8.51	5.58	111	229	0
36MW1035	01/25/02	C	ND		13.21	5.52	5.53	66	418	2.7
	03/26/02		ND		12.31	5.32	5.39	65	200	4.8
36MW1036A	01/17/02	E	0.013		11.44	2.70	6.95	99	156	7.0
	03/25/02		0.013		11.44	3.42	6.61	98	7.6	5.4
36MW1036B*	08/02/01	D	0.209		13.21	2.49	5.11	69	302	4.8
	01/17/02		0.260		11.43	3.68	5.47	64	409	3.5
	03/25/02		0.268		11.47	3.95	5.30	61	207	6.8
36MW1036C*	08/02/01	C	0.062		14.16	1.21	5.75	74	155	3.6
	01/17/02		0.057		11.60	1.53	6.18	71	341	1.0
	03/25/02		0.043		12.00	1.63	5.82	68	134	2.0
36MW1037B*	08/01/01	D	1.79		14.36	2.73	5.82	84	177	5.2
36MW1037C*	08/02/01	B	0.311		14.66	7.73	5.17	64	363	0.5
36MW1038A	01/21/02	D	0.039		10.69	0.90	6.42	89	-33.4	10.2
	03/27/02		0.043		11.28	0.80	6.33	89	-1.1	4.8
36MW1038B	01/21/02	D	21.3		10.37	2.66	5.76	90	174	4.9
	03/29/02		17.7		12.05	3.68	5.80	89	456	3.2
36MW1038C	01/21/02	A	0.018		11.49	9.08	5.81	69	212	0.8
	03/27/02		0.016		12.62	9.02	5.74	68	154	0.7
36MW1039B*	08/08/01	C	0.615		13.67	5.64	5.77	85	201	13
	01/24/02		0.288		11.34	5.68	5.80	85	180	14
	03/26/02		0.210		11.27	5.98	5.86	84	422	21
36MW1039C*	08/08/01	B	0.345		14.84	5.52	6.12	92	136	6.3
36MW1040A	01/25/02	E	1.02		10.61	2.03	6.19	115	181	1.4
	03/21/02		1.12		11.50	1.97	6.07	116	149	0.9
36MW1040B	01/25/02	C	ND		10.29	0.18	6.80	106	-94.2	2.3
	03/21/02		ND		11.41	0.39	6.55	105	-78.2	2.7

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Location	Date Sampled	Well Depth Class	EDB Concentration (µg/L) (MMCL = 0.02 µg/L)	Qualifier	Temperature (°C)	Dissolved Oxygen (mg/L)	pH (std)	Specific Conductance (µS/cm)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)
36MW1041A	01/21/02	D	17		10.35	2.25	5.94	98	121	11
	03/21/02		16.8		11.35	2.26	5.77	96	177	5.1
36MW1041B	01/21/02	C	3.14		10.98	0.97	6.26	99	-14.7	1.5
	03/21/02		3.33		11.79	0.74	6.11	98	23.8	1.3
36MW1041C	01/21/02	B	0.849		10.88	2.78	6.26	96	101	31
	03/21/02		1.25		12.44	2.19	6.04	93	127	18
36MW1042A	01/17/02	D	ND		10.84	9.84	6.06	68	229	0.9
	03/22/02		ND		10.52	9.84	6.11	68	198	2.5
36MW1042B	01/17/02	C	ND		11.08	7.86	6.00	74	109	2.3
	03/22/02		ND		11.52	8.86	5.92	70	132	3.2
36PZ1001	01/18/02	A	ND		NS	NS	NS	NS	NS	NS
	03/21/02		ND		10.48	9.05	6.99	79	-16.8	190
36PZ1002A	01/25/02	C	ND		9.69	7.63	6.23	69	166	52
	03/25/02		ND		9.88	7.54	6.47	68	159	75
36PZ1002B	01/25/02	A	ND		4.49	2.12	5.99	77	139	32
	03/25/02		ND		7.18	1.32	5.95	76	171	34
36PZ1003	01/25/02	A	ND		6.47	11.57	6.33	63	109	1367
	03/25/02		ND		8.49	10.54	6.00	53	247	48
36PZ1010	01/24/02	A	ND		10.69	0.28	6.04	95	230	25
	03/29/02		ND		10.71	0.57	5.82	99	273	11

Data Sources: Jacobs, November 2001, Site Environmental Evaluation (SEE) database and AFCEE, 08 January and 13 September 2002, MMR-AFCEE Data Warehouse.

Notes:

The accuracy of the field parameter instrument readings is as follows: temperature (+/- 0.15%), specific conductance (+/- 0.5% of reading plus 1 µS/cm), dissolved oxygen (for instrument readings 0-20 mg/L, +/- 0.2 mg/L and for instrument readings 20-50 m

\* = One-time sampling event (Project Note A3P-J23-35Z01516-A4-0004)

\*\* = 36EW4109 replaced 36EW4110 due to a broken valve.

Bold indicates MMCL exceedance.

°C = degrees Celsius

EDB = ethylene dibromide

J = estimated concentration

MMCL = Massachusetts maximum contaminant level

mV = millivolts

ND = nondetect

NS = not sampled

NTU = nephelometric turbidity units

std = standard units

µg/L = micrograms per liter

µS/cm = microsiemens per centimeter

**Well Depth Class**

A Midscreen above 0 ft msl

B Midscreen between 0 and -50 ft msl

C Midscreen between -50 and -100 ft msl

D Midscreen between -100 and -150 ft msl

E Midscreen between -150 and -200 ft msl